Response to EPA Comments (received August 1, 2012) on the Draft QAPP DO Addendum dated July 24, 2012

No.	Section	Commenter	Comment	Response
1	Worksheet 11: What will the data be used for?	USEPA	How? There's too much separation in time between the benthic sampling events and this event to do more than a qualitative review. Please remove this sentence.	The last sentence of Worksheet No. 11 (What will the data be used for?) has been changed to : This information will also be used, along with other site-specific qualitative data from previous studies, to provide information on the environmental setting for the baseline ecological risk assessment to help fully characterize the ecological system present within the LPRSA (Windward and AECOM [in prep]). The use of site-specific data to describe environmental conditions within the LPRSA is consistent with USEPA guidance (USEPA 1997). This is intended to be a qualitative description and not intended to compare conditions now with conditions in 2009/2010.
2	Worksheet 11: What types of data are needed?	USEPA	Recommend including the depth the meter should be mounted in WS 17 and the SOP. This is the only location where it indicates the depth the meter will be mounted above the bottom.	The depth of the water quality meter (i.e., 8 in., above the bottom) has been added to Worksheet No. 17 (Describe and provide a rationale for choosing the sampling approach) in the second sentence of the second paragraph. The depth of the water quality meter has also been added to the SOP (second sentence of Section IV).
3	Worksheet 11: How "good" do the data need to be in order to support the environmental decision?	USEPA	Please remove this sentence.	The first sentence of Worksheet No. 11 (How "good" do the data need to be in order to support the environmental decision?) has been changed to: The data collected during the summer and fall 2012 DO monitoring program described in this Physical Water Quality Monitoring QAPP addendum will be used to help characterize the aquatic system of the LPRSA. This information will be used, along with other site-specific qualitative data from previous studies, to provide information on the environmental setting for the baseline ecological risk assessment to help fully characterize the ecological system present within the LPRSA (Windward and AECOM [in prep]).
4	Worksheet 11: How "good" do the data need to be in order to support the environmental decision?	USEPA	Please update number of locations – 8 correct?	The number of locations has been updated to 11 in the LPRSA in the first sentence of Worksheet No. 11 (How "good" do the data need to be in order to support the environmental decision?).

5	Worksheet 11: How "good" do the data need to be in order to support the environmental decision?	USEPA	While it probably makes sense to include benchmarks for comparison, it needs to be made clear that no direct, causal links can be made between conditions now and those that existed in 2009/2010.	Comment noted. No direct, causal links between conditions now and those that existed in 2009/2010 will be made. The surface water quality criteria were included as general surface water quality standards for New Jersey. The following sentence has been added: These benchmarks are included but not intended to be a direct causal link between conditions now and those that existed in 2009/2010.
6	Worksheet 11: How many data are needed?	USEPA	There are a lot of assumptions being made about what the DO values will be in the river, but there is limited data presented to support these statements. Some data to support these assertions should be included. To what baseline is DO depressed or elevated ?	References to USGS temperature and flow data have been added in the second sentence of the second paragraph of Worksheet No. 11 (How many data are needed?). DO may be compared with New Jersey surface water quality standards for DO as referenced in last paragraph of Worksheet No. 11 (How "good" do the data need to be in order to support the environmental decision?)
7	Worksheet 13	USEPA	The project team needs to carefully evaluate the quality of secondary data (in terms of precision, bias, representativeness, comparability, and completeness) to ensure they are of the type and quality necessary to support their intended uses. Worksheet should reflect this evaluation.	Language has been added to Worksheet No. 13 (Limitations on Data Use column) to state that because DO measurements were only taken once daily during daylight hours (when DO level were expected to be highest) it is not possible to compare results with standards involving 24-hour averages.
8	Worksheet 13	USEPA	Was used	Language was updated to the past tense (data were used) in Worksheet No. 13 (How Data Will Be Used column).
9	Worksheet 13	USEPA	Need to indicate quality of these measurements. If unknown, then state that. DO measurements subject to inaccuracy	The quality of the DO data is unknown, and this language has been added to the Worksheet No. 13 (Limitations on Data Use column).
10	Worksheet 14: Secondary Data	USEPA	The primary objective is to collect DO data so that 24-hour averages can be calculated. It is not to assess the impact of biotic communities because additional information would need to be collected to achieve this endpoint.	Language has been changed in Worksheet No. 14 (Secondary Data) to indicate that 24-hour averages will be calculated.
11	Worksheet 17: Describe and provide a rationale for choosing the sampling approach (e.g., grid system, biased statistical approach):	USEPA	This worksheet was intended to mainly describe the sampling design and rationale not details of the sampling procedure. Explain the link of the salinity regimes to the DO measurements.	The link between salinity regimes and the DO measurements has been clarified in the first paragraph of Worksheet No. 17 (Describe and provide a rationale for choosing the sampling approach).

12	Worksheet 17: Describe and provide a rationale for choosing the sampling approach (e.g., grid system, biased statistical approach):	USEPA	TOC is being considered an important parameter for this data collection event, however, unless there are similar samples collected at areas with similar conditions but lower TOC values, the data cannot be used to make conclusions about TOC values impacting DO. In general, the design of this study is solely geared towards getting continuous DO values at several locations in a large waterbody. We are recommending 3 additional locations to include in areas with low TOC.	The three locations were added to the proposed sampling locations as requested (Figure 1). The first paragraph of Worksheet No. 17 has been revised to clarify the rationale for the sampling approach.
13	Worksheet 17: Describe and provide a rationale for choosing the sampling approach (e.g., grid system, biased statistical approach):	USEPA	Explain why (i.e., the rationale)	The rationale for the locations above Dundee Dam has been added (i.e., locations are background locations) to the last sentence of the second paragraph in Worksheet No. 17 (Describe and provide a rationale for choosing the sampling approach (e.g., grid system, biased statistical approach).
14	Worksheet 17: Describe and provide a rationale for choosing the sampling approach (e.g., grid system, biased statistical approach):	USEPA	There are multiple statements about the data being used to support the BERA, but with the small number of locations, the time delay between DO collection and other parameters, such as benthic community surveys, the usefulness of the data being collected will at best be a very minor, and weak, line of evidence in the BERA.	The language referring to the BERA in Worksheet No. 17 (Describe and provide a rationale for choosing the sampling approach) has been removed from the first sentence of the last paragraph. The following sentence was added to help clarify: This information will also be used, along with other site-specific qualitative data from previous studies, to provide information on the environmental setting for the baseline ecological risk assessment to help fully characterize the ecological system present within the LPRSA (Windward and AECOM [in prep])..
15	Worksheet 17: Describe the sampling design and rationale…	USEPA	Refer to the figure showing the sampling locations; matrix is aqueous; note if any QC measurements will be taken or not taken and if any background measurements will be collected. Refer to Worksheet No. 18 for the rationale of each location.	A reference to Figure 1 has been added to the first sentence of the first paragraph in Worksheet No. 17 (Describe the sampling design and rationale…), and the reference includes language that DO will be measured in water to address the request to specify the matrix. A reference to the SOP for QC control procedures has been added to the last sentence of the first paragraph in Worksheet No. 17 (Describe the sampling design and rationale…). The language "The rationale for each location is presented in Worksheet No. 18" has not been changed.

16	Worksheet 18	USEPA	Please include if the sampling location will be mid-channel or off set and the rational	Worksheet No. 18 has been revised to include information on the location with respect to the channel, and the rationale has been provided for the additional locations requested by USEPA.
17	Worksheet 37	USEPA	Results should be evaluated for reasonableness. High DO readings may be suspect based on their expected levels and potential equipment malfunction or fouling or out of calibration.	Language has been added to the first sentence of the first paragraph of Worksheet No. 37 to describe that results will be evaluated based on whether they are reasonable (based on expected levels and potential for equipment malfunction, fouling, and calibration issues).
18	General comment	USEPA	Include grab samples on download dates to ensure we do not have monitor drift.	Language has been added to Worksheet No. 11 (Where, when and how should the data be collected/generated) and in Worksheet No. 14 (QC Tasks) to describe that a separate meter will be used to obtain a vertical profile at each station to measure DO, temperature, pH, conductivity, and turbidity prior to retrieving and after redeployment of the original meter. Instruments will be calibrated prior to redeployment.